GF54.30-P-3011A	Electronic clock, location/function	24.10.96

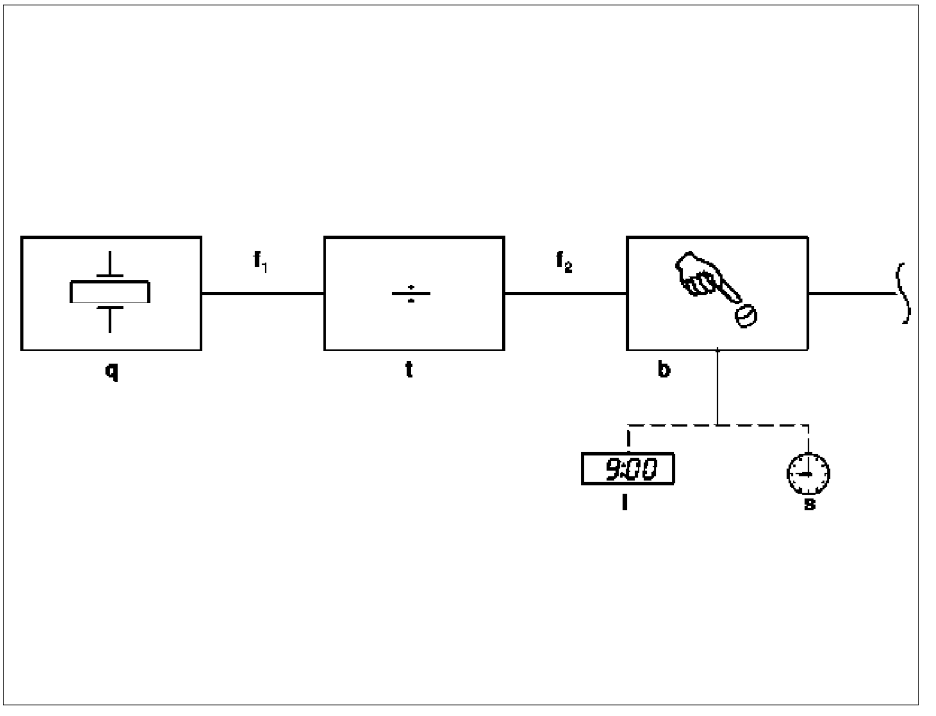
MODEL 129, 140 as of 1.6.96,
163, 168, 170,
202 as of 1.8.96,
208 up to 31.7.99,
210 as of 1.6.96 up to 30.6.99

General

A periodic process with a period of high accuracy is required to measure time (clock) (e.g. rotation of the earth, pendulum oscillation.)

Electronic clock

Accordingly an electrical clock signal of high frequency accuracy is required for an electronic clock. This clock signal is usually derived from the very constant mechanical oscillations of an oscillator crystal. A quartz (q) with a really high frequency (e.g. f1 = 1 MHz) is normally used. This frequency is then adjusted down to the required frequency f2 1 Hz or 1/60 Hz by an electronic frequency divider (t), i.e. one pulse is generated every second or minute. The display unit can be actuated by this pulse. A stepper motor (s) is used on clocks with a pointer and a liquid crystal display (I) on clocks with a digital display.



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With an additional circuit (b) the clock can be adjusted via control buttons.

In addition the time or a time/date pulse is also made available to other systems (e.g. trip computer, Active Service System (ASSYST), maintenance display).

	Trip computer interface, location/task		GF54.30-P-2016A
	Liquid crystal display, location/task/function		GF54.30-P-3015A
	Oscillator crystal, function		GF54.30-P-3017A
	Stepper motor, location/design/function		GF54.30-P-3009A